

E16



FIG. 1A

P60

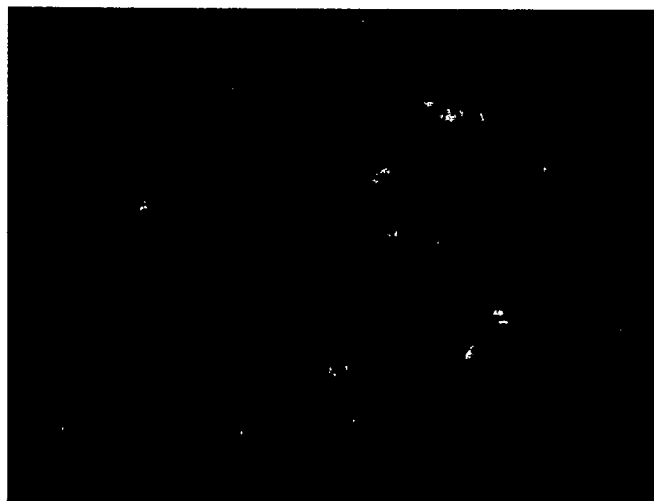


FIG. 1B



← 1018 bp

← 507 bp

FORWARD PRIMER [GCGGGGCGGTGCGTGACTAC]
 REVERSE PRIMER [GGGTGGTGAGGGTTGAGGTTTGTG]

FIG. 2

NESTIN POSITIVE CELLS PROLIFERATE AROUND ISLETS IN VITRO



FIG. 3

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100x

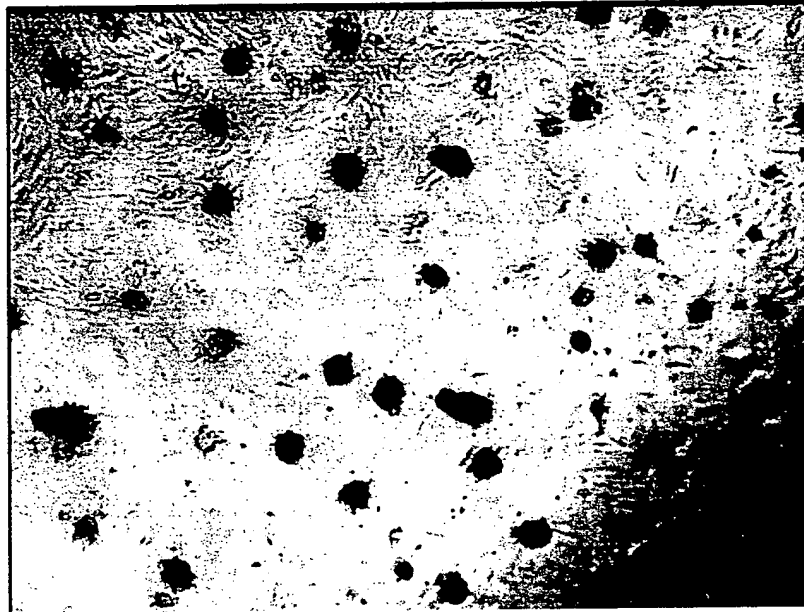


FIG. 4A

200x

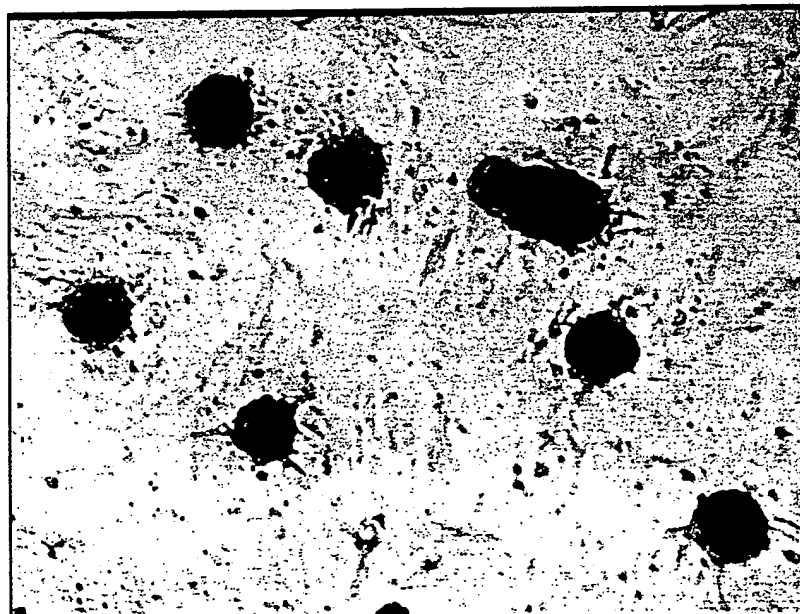


FIG. 4B

TOP SECRET 60

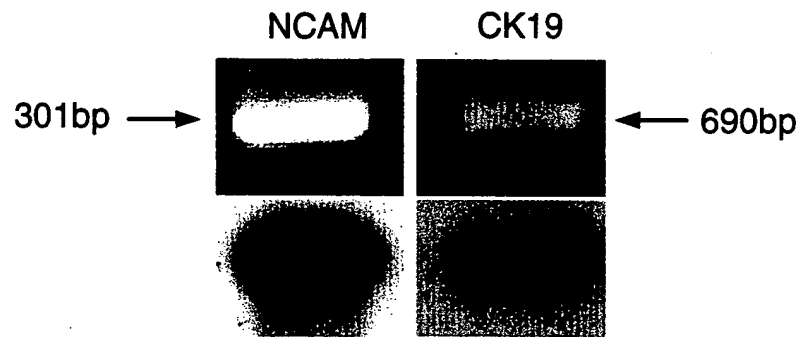


FIG. 5

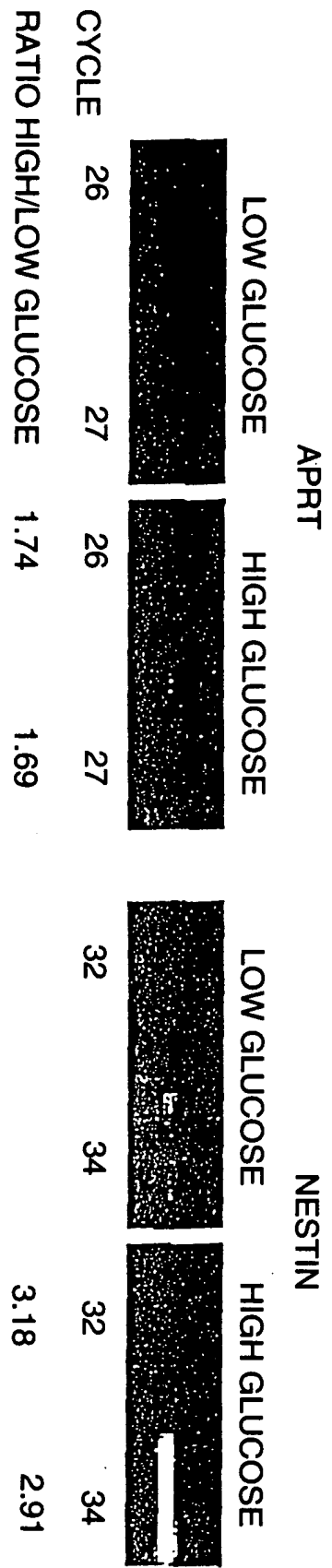


FIG. 6

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Nestin Amino Acid Sequence:

"MEGCMGEESFQMWELNRRLEAYLGRVKALEEQNELLSAGLGGLR
RQSADTSWRAHADDELAALRALVDQRWREKHAAEVARDNLAEELGVAGRCEQLRL
ARERTTEEVARNRRAVEAEKCARAWLSSQGAELERELEALRVAHEEERVGLNAQAAC
APRLPAPPRPPAPAPEVEELARRLGEAWRGAVRGYQERVAHMETSLDQTRERLARAVQ
GAR
EVRLELQQLQAERGGLLERRAALEQRLEGRWQERLRATEKFQLAVEALEQEKQGLQSQ
IAQVLEGRQQLAHLKMSLSLEVATYRTLLEAENSRLQTPGGGSKTSLSFQDPKLELQF
PRTPEGRRLGSLLPVLSPTSLPSPLPATLETPVPAFLKNQEFLQARTPTLASTPIPT
PQAPSPAVIDAEIRAQDAPLSLLQTQGGKQAPPEPLRAEARVAIPASVLPGPEEPGGQR
QEASTGQSPEDHASLAPPLSPDHSSLEAKDGESGGSRVFSICRGEGEGQIWGLVEKET
AIEGKVSSSLQEQIWEEDLNRKEIQDSQVPLEKETLKS LGEEIQESLKTLENQSHET
LERENQECPRSLEEDLETLSLEKENKRAIKGCGGSETSRKRGCRLKPTGKEDTQTL
QSLQKENQELMKSLEGNLETFLFPGTENQELVSSLQENLES LTALEKENQEPLRSPEV
GDEEALRPLTKENQEPLRSLEDENKEAFRSLEKENQEPLKTLEEDQSIVRPLETENH
KSLRSLEEQDQETLRTLEKETQQRRLSLGEQDQMTLRPPEKVDLEPLKSLDQEIARPL
ENENQEFLKSLKEESVEAVKSLETEILESLSAGQENLETLSKSPETQAPLWTPPEINK
SGGNESSRKGNRSRTTGVCSEPRDIQTPGRGESGIIISGSMEPGEFEISRGVDKESQ
RNLEEEENLGKGEYQESLRSLEEEGQELPQSADVQRWEDTVEKDQELAQESPPGMAGV
ENKDEAELNLREQDFTGKEEVVEQGELNATEEVWFPGEHGPENPEPKEQRGLVEGAS
VKGGAEGLQDPEGQSQQVGTPLQAPQGLPEAIEPLVEDDVAPGGDQASPEVMLGSEP
AMGESAAGAEPGLGQGVGGLGDPGHLTREEVMEPPLEESLEAKRVQGLEGPRKDLLE
AGGLGTEFSELPGKSRDPWEPPREGREESEAEAPRGAEAEAFPAETLGHTGSDAPSPWP
LGSEEAEDVPPVLVSPSTYTPILEDAPGLQPQAEGSQEASWGVQGRAEAGKVESEQ
EELGSGEIPEGLQEEGEESREESEDELGETLPDSTPLGFYLSPTS PRWTPLESRGH
PLKETGKEGWDPAVLASEGLEEPSEKEEGEEGEEECGRDSDLSEEFEDLGTEAPFLPG
VPGEVAEPLGQVPQLLLDPAAWDRDGEDSGFADEEESGEEGEEDQEEGREPGAGRWGP
GSSVGS LQALSSSQRGEFLES DSVSVVPWDDSLRGAVAGAPKTALETESQDSAEPG
SEESDPVSLEREDKVPGLEIPSGMEDAGPGADIIGVNGQPNLEGKSQHVNGGVMN
GLEQSEESGARNALVSEGDRGSPFQEEEGSALKRSSAGAPVHLGQGQFLKFTQREGDR
ESWSSGED"

Nestin Nucleotide Sequence:

BASE COUNT 1238 a 1176 c 1676 g 764 t ORIGIN 1

atggagggct gcatggggga ggagtcgtt cagatgtggg agctcaatcg ggccttgag 61
gcctacctgg gccgggtcaa ggcgctggag gacgagaatg agctgctcag cgccggactc 121
ggggggctcc ggcgacaatc cgcgacacc tctggcggg cgcatgccga cgacgagctg 181
gcggccctgc gtgcgctcgt tgaccaacgc tggcgggaga agcacgcggc cgaggtggcg 241
cgcgacaacc tggctgaaga gctggagggc gtggcaggcc gatgcgagca gctgcggctg 301
gcccgggagc ggacgacgga ggaggtagcc cgcaaccggc gcgcgtcga ggcagagaaa
361 tgcgcccggg cctggctgag tagccagggg gcagagctgg agcgcgagct agaggctcta
421 cgcgtggcgc acgaggagga gcgcgtcgt ctgaacgcgc aggtgcctg tgcccccg

FIG. 7A

481 ctgcccgcgc cgccccggcc tcccgcgccg gccccggagg tagaggagct ggcaaggcga
 541 ctgggcgagg cgtggcgccg ggagtgccg ggctaccagg agcgctggc acacatggag
 601 acgtcgctgg accagacccg cgagcgccg gcccggcggg tgcaggggtgc ccgcgaggtc
 661 cgcttgagc tgcagcagct ccaggctgag cgcgagggcc tcttgagcg cagggcagcg
 721 ttggaacaga ggttgagggg ccgctggcag gagcggtgc gggctactga aaagtccag
 781 ctggctgtgg aggccctgga gcaggagaaa caggccctac agagccagat cgctcaggtc
 841 ctggaaggtc ggcagcagct ggcgacctc aagatgtccc tcagcctgga ggtggccacg
 901 tacaggaccc tcttgaggc tgagaactcc cggctgcaa cacctggcg tggctccaag
 961 acttccctca gcttcagga cccaagctg gagctgcaat tccctaggac ccagagggc
 1021 cggcgtcttg gatcttctg cccagctctg agcccaactt cctccccctc acccttgct
 1081 gctacccttg agacacctgt gccagcctt cttagaacc aagaattct ccaggccgt
 1141 accctacct tggccagcac cccatcccc ccacacctc aggcacctc tctgtctga
 1201 gatgcagaga tcagagccca ggatgtcct ctctctgc tccagacaca gggtgagg
 1261 aaacaggctc cagagccct gcgggtgaa gccagggtgg ccttctgc cagcgtctg
 1321 cctggaccag aggagcctgg gggccagcg caagaggcca gtacaggcca
 gtccccagag 1381 gaccatgcct ccttggcacc accctcagc cctgaccact ccagtttaga
 ggctaaggat 1441 ggagaatccg gtgggtctag agtgtcagc atatccgag gggaaggta
 agggcaaac 1501 tgggggttg tagagaaaga aacagccata gagggcaaag tgtaagcag
 ctgcagcag 1561 gaaatggg aagaagagga tctaacagg aaggaaatcc aggactcca
 ggttcttg 1621 gaaaaagaaa cctgaagtc tctgggagag gagattcaag agtactgaa
 gactctgaa 1681 aaccagagcc atgagacact agaaaggag aatcaagaat gtccgagtc
 tttagaaga 1741 gacttagaaa cactaaaaag tctagaaaag gaaaataaaa gagctattaa
 aggatgtgga 1801 ggtagtgaga ccttagaaa aagaggctgt aggcaactta agcctacagg
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 tctgaaggt 1921 aatctagaga cattttatt tccaggaacg gaaaatcaag aattagtaag
 ttctctgcaa 1981 gagaacttag agtcattgac agctctggaa aaggagaatc aagagccact
 gagatctcca 2041 gaagtagggg atgaggaggc actgagacct ctgacaaagg agaatcagga
 accctgagg 2101 tctctgaag atgagaaca agaggcctt agatcttag aaaaagagaa
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 tgaaaaagag 2281 actcaacagc gacggaggtc tctaggggaa caggatcaga tgacattaag
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 aaaatcttta 2461 gaaacagaga tcttagaat actgaagct gcgggacaag agaacctgga
 aacactgaaa 2521 tctccagaaa ctcaagcacc actgtggact ccagaagaaa taaataaatc
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 accaagagac 2641 attcagactc ctggaagagg agaatcagga atcattgaga tctctggag
 catggaacct 2701 ggagaattg agatctccag aggagtagac aaggaaagtc aaaggaatc
 ggaagaggaa 2761 gagaacctgg gaaagggaga gtaccaagag tcactgaggt ctctggagga
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 ggaccaagaa 2881 ctggctcagg aaagccctcc tgggatggct ggagtggaaa ataaggatga
 ggcagagctg 2941 aatctaagg agcaggatgg ctctactggg aaggaggagg tggtagagca
 gggagagctg 3001 aatgccacag aggaggtctg gtccccaggc gaggggcacc


cagagaaccc tgagcccaa 3061 gagcagagag gcctggtga gggagccagt
 gtgaagggag gggctgaggg cctccaggac 3121 cctgaagggc aatcacaaca
 ggtggggacc ccaggcctcc aggtcccca ggggctgcc 3181 gaggcgatag agcccctggt
 ggaagatgat gtggccccag ggggtgacca agcctccca 3241 gaggtcatgt tggggtcaga
 gcctgccatg ggtgagtctg ctgcgggagc tgagccaggc 3301 ctggggcagg ggggtggagg
 gctgggggac ccaggccatc tgaccaggga agaggtgatg 3361 gaaccacccc
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 tagaggaggc aggtggtctg gggacagagt tctccagct gcctgggaag 3481 agcagagacc
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 aggggagcag agggagcggt cctgctgag accctgggc aactggaag tgatgccct 3601
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 4141 ggggaggtgg cagaacctct gggccagggtg cccagctgc tactggatcc tgcagcctgg
 4201 gatcgagatg gggagtctga tgggttgca gatgaggaag aaagtggga ggaggagag
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 4621 gggaagtcac agcatgaaa tgggggagta atgaacggc tggagcagtc tgaggaaagt
 4681 ggggcaagga atgcgctagt ctctaggga gaccaggga gcccttca ggaggaggag
 4741 gggagtgtc tgaagaggtc ttcggcagg gctcctgtc accgggcca gggtcagtc
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FIG. 7C

[illegible]

E16

P60



P60

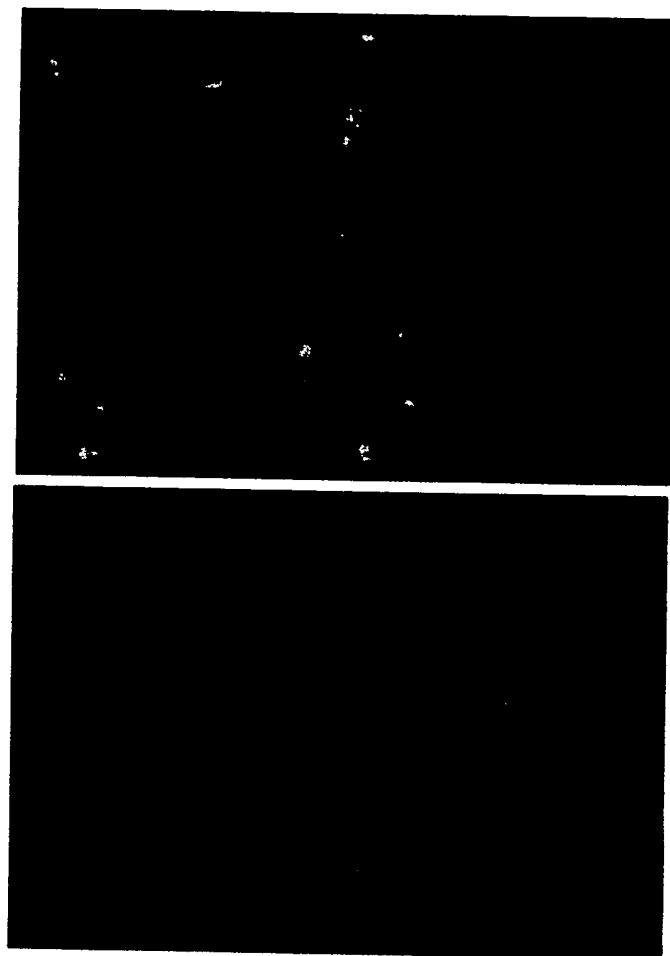
P60

FIG. 8E

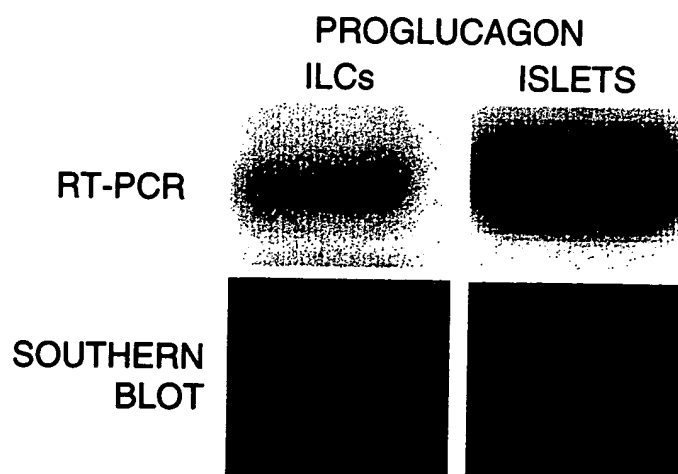
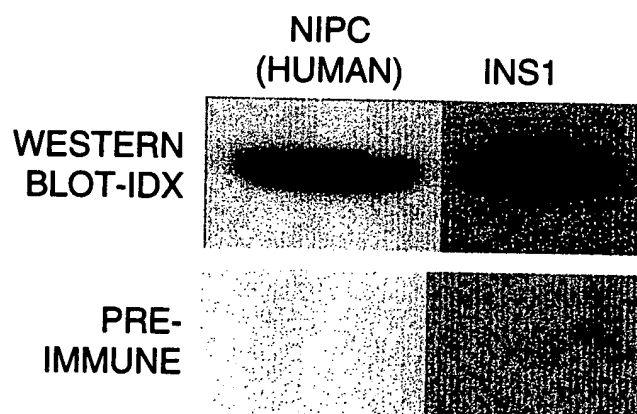
FIG. 9A

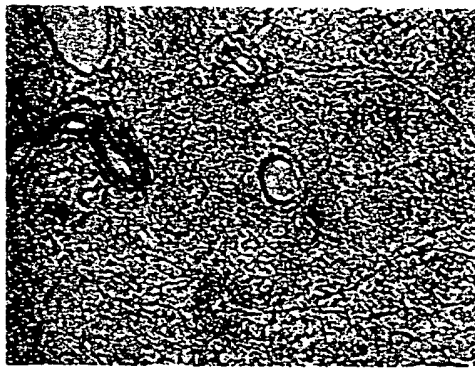
FIG. 9B

FIG. 9C



RT-PCR





CK19 / NESTIN



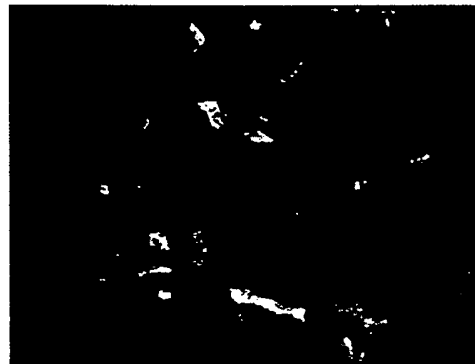
FIG. 11A.

CK19 / NESTIN



FIG. 11B

NESTIN



NESTIN/NUCLEI

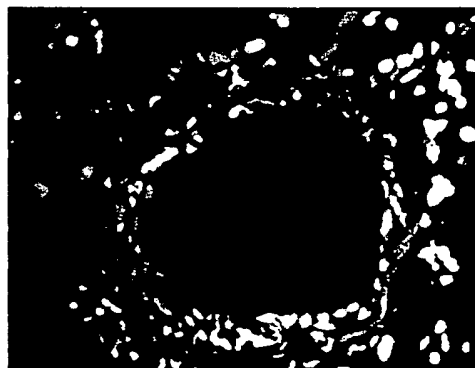


FIG. 11C

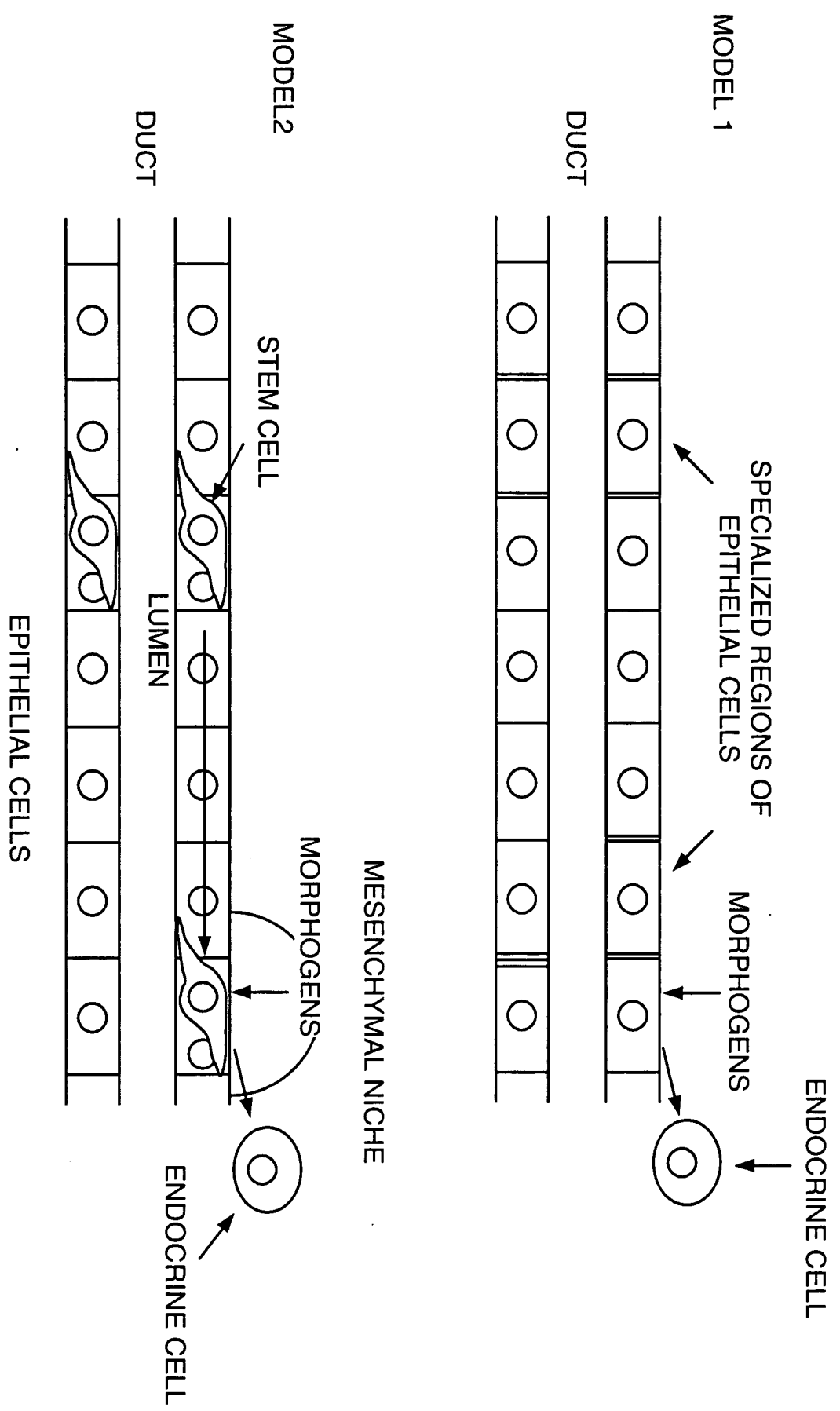


FIG. 12



FIG. 13A

TOP SECRET



FIG. 13B

DAY:	E8.5	E9.5	E13	E14	E15
------	------	------	-----	-----	-----

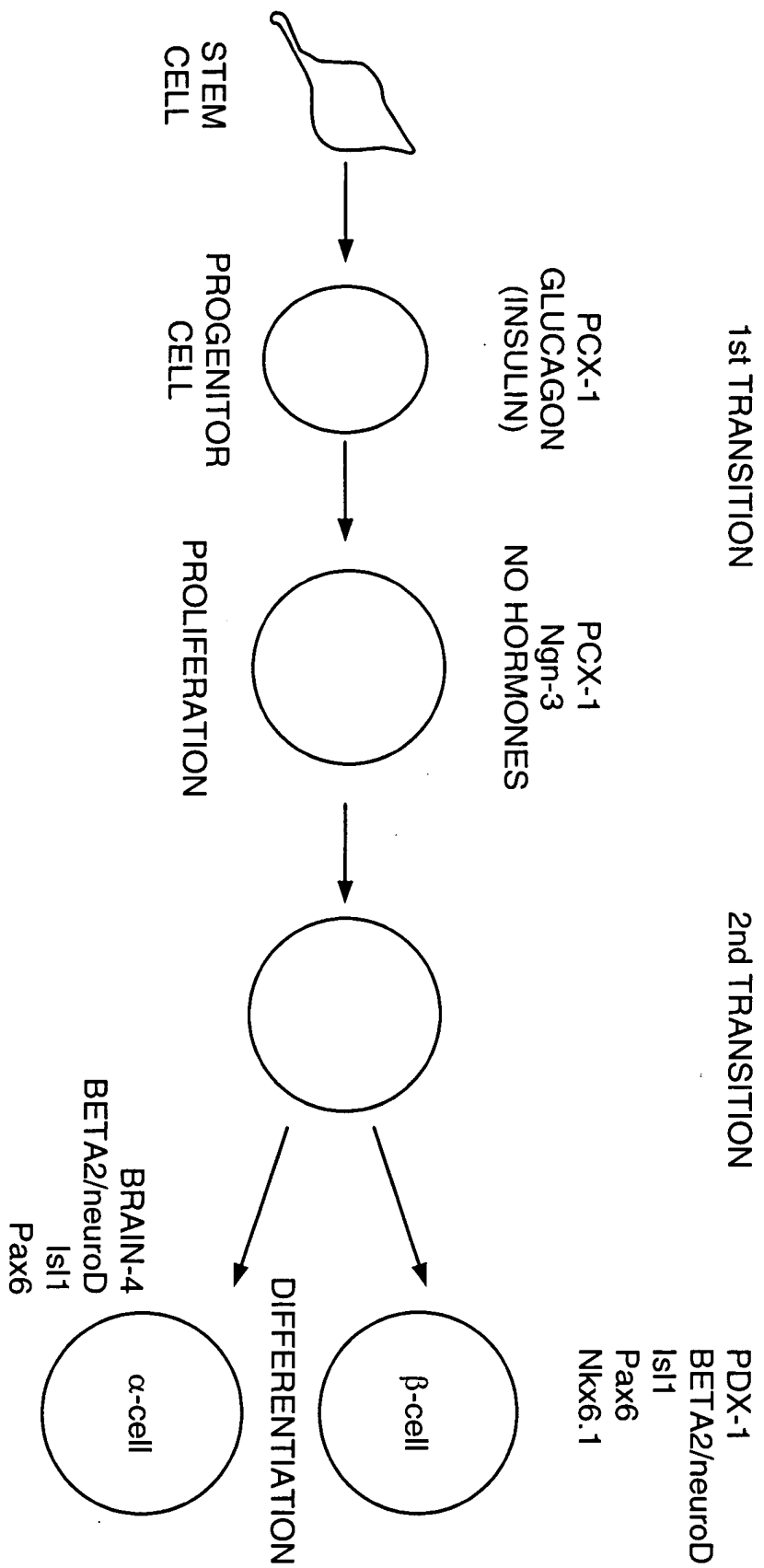


FIG. 14

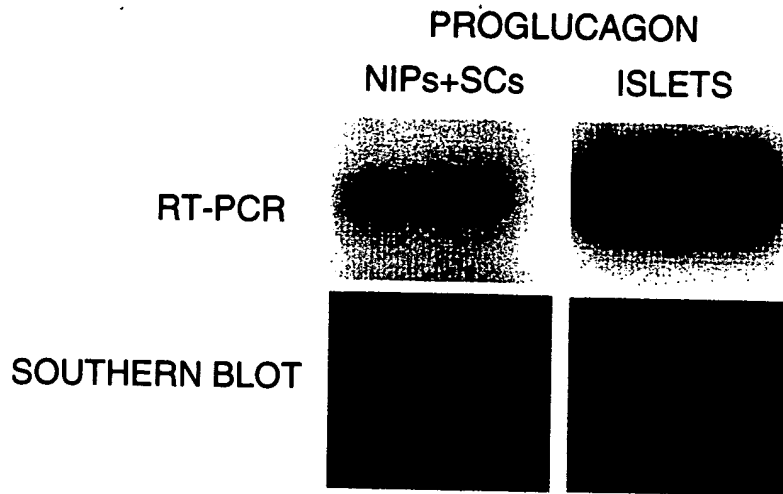


FIG. 15A

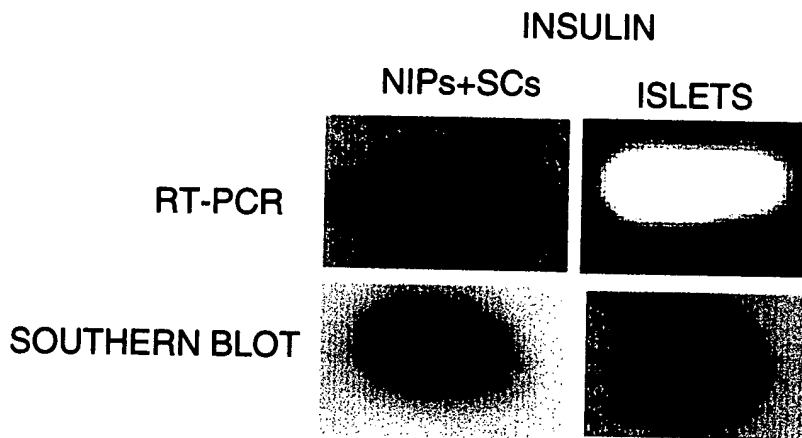


FIG. 15B

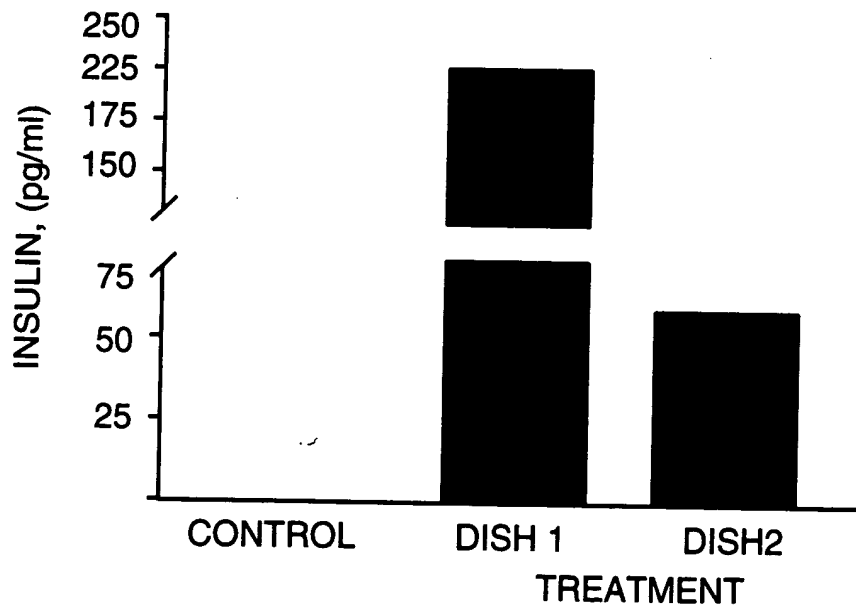


FIG. 15C

NEURO-
ENDOCRINE

SYN



HGFR



GLUT-2

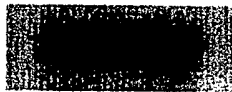


EXOCRINE

AMY



CARB

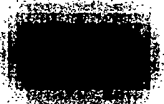


HEPATIC

TTR



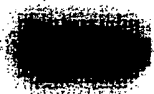
HGF



E-CAD



XBP



AFP



FIG. 16